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# ral Lines

RURAL ELECTRIFICATION ADMINISTRATION • U. S. DEPARTMENT OF AGRICULTURE

DECEMBER  
1959



POWER FOR CHRISTMAS



## *A Message from the*

# ADMINISTRATOR

This holiday season will see millions of Christmas trees decorating homes and offices across rural America. About half of the trees in our farm areas will be lighted through service from rural systems financed by REA.

Other borrowers of REA funds—independent telephone companies and telephone co-ops—will carry hundreds of thousands of holiday greetings for families on farms and in rural homes.

Christmas trees and the exchange of greetings are just two of the many symbols we use in observing the mid-winter holidays. Rural electrification and rural telephones help keep the season meaningful in many ways. A variety of electric lighting brightens the Christmas scene. Telephones are busy helping families speed their shopping and arranging the many get-togethers that mean so much to us this time of the year.

The traditional exchanges of gifts will include many thousands of household electrical appliances and color telephones. Radio and TV will bring Christmas programs into millions of farm homes. Light and heat and communications for religious services in thousands of country churches this Christmas Eve will come from REA-financed business enterprises which are owned and controlled by local people to serve their own needs.

For directors, and for managers and their staffs, this gift of good service to the rural communities is the very best way to say "Merry Christmas and a Bright and Prosperous New Year."

## *Rural Lines*

A handwritten signature in cursive script, reading "David G. Hamel".

*Administrator.*

Editor: John H. Howard. Editor of this issue, Donald H. Cooper.

Cover: Christmas has a special meaning for Harold K. Anderson, assistant manager of Crow Wing Cooperative Power and Light Company, Brainerd, Minn. He recently became the State's 1,000th tree farmer. Our cover picture shows him posting his symbol of good forest management practices, while his family looks on with approval.

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## TIME ENOUGH TO BE FRIENDLY

To talk with David C. Henny, manager and president of the Whidbey Telephone Company, is a stimulating experience. Just to reach the area he serves on the second largest island in the United States (before Alaska and Hawaii were added), is in itself a surprising experience.

You leave the busy, streamlined city of Seattle, Washington, and take the Mukilteo ferry across Puget Sound to Whidbey Island. Or you drive north from Seattle to the rich farmland around Mt. Vernon, and then over the high bridge that arches across the churning water where the tides fight their way in and out of

**Manager Henny as business man:** "Become a part of the community and help it grow and improve."

narrow Deception Pass. Either way, you come into the relaxed loveliness of Whidbey Island. It is all rural—quiet farms and woodland, with a new view of Puget Sound's bays and the snow-capped Olympic Mountains at every turn of the road. The little towns, sprinkled here and there, have a quiet, neighborly air about them. There is time enough to be friendly.

Even the telephone company is run in this easy, neighborly way. And that brings us back to Manager Henny, who is never too busy to chat with subscribers.

When Henny was 12 years old, he built a homemade telephone system to talk with several chums down the street. The telephone company that served the city didn't mind the competition, but the scrap-wire contrivance set up induction currents that played hob with neighborhood service. Company trouble shooters, armed with a cease and desist ultimatum, took an interest in the skill and interest of the boy manager which led to a tour of the Bell main office and later the A. T. & T. Long Lines building in New York City.

By the time young Henny completed his third year of pre-med at Reed College, in Portland, Oregon, he had made up his mind that the telephone industry was more interesting. "I had worked the switchboard at medical school and then in a hospital, so I felt I had a unique opportunity to do something I liked," he recollects.

His next step was to take Telephony's directory of the industry and study the 5,000 independent telephone companies listed there. He had already narrowed down the

United States to four locations where he wanted to live. Now he looked for systems sufficiently run down to be within his purchasing price reach but with plenty of potential for a business future.

His search pointed to the magneto system on Whidbey Island, but here his well-planned strategy ran into a snag. The owners did not want to sell. Henny took this setback with determined optimism. He found a job with a nearby telephone company and continued negotiations until he was able to buy the system he had selected on Whidbey Island.

The plant he acquired was built in 1908 by a mutual stock corporation. "We had a terrible time tracing the stock," Henny recalls. "It had been passed around from hand to hand. Most of it had been acquired by a single family, but we found some which had been used to paper the walls of a room."

Henny was 23 years old when he acquired the company. Now he is 29, married, and father of two small daughters. "My wife used to help me string wire and handle the switchboard, but she has her hands full now," he says. He points out that with a small system, the manager has to be everything from janitor to public relations expert, and thinks this latter job the most challenging of all his tasks.

"You can't just talk about improving service, for instance," Henny explains, "You have to do something about it." As an example, he cites a pay station he installed at the ferry landing. It was costly and is not yet paying its way, but some people needed it enough to make it a public relations matter. When he began changing over the magneto plant to common battery, a woman subscriber

who had been quite critical came into the office to say, "You mean to tell me the telephone company is doing something to improve service without having to be pestered about it first?"

Henny thinks public relations get overlooked too easily in the small company, because the manager is kept busy doing so many different things. He observes that "the small company has practically all the problems of a large company—there just aren't so many people to take care of them." He believes ownership or management of a small independent telephone company offers a stimulating variety of experience for a young man. "In a large company you are just a small cog in a big machine and find yourself channeled into a narrow field. Here, I work with the whole thing. People hold the manager personally responsible for anything that happens to the service. If the wind blows down a pole or I have to cut off service for non-payment of a bill, someone is sure to take it as a personal insult."

There aren't many complaints these days, though, for the telephone system's new owner likes people and now knows most of the old-timers personally. He has 800 subscribers now and expects to have 1,500 in 5 years. Many of these are retired people. The island has had a high percentage of farms, mostly poultry and dairying, but now it is turning to vacation resorts, boating, and fishing. Better roads and improved telecommunications will help draw tourists and permanent residents alike.

The system planned by the Whidbey Telephone Company takes advantage of many new developments in the industry. REA financing will make possible conversion of the entire service to dial by May 1960. The



**Manager Henny as public relations specialist (left):** "Know every subscriber by name and know what they want." **As lineman (right):** "This plant is going underground."

company's office and main exchange will be moved from Langley to Bayview, a more central location. The new office building, like Henny's house nearby, will have a view out across the bay to the mountains.

There will be four base rate areas, with mileage charges to subscribers outside the limits. Henny claims that the favorable geographic arrangement will keep charges down. The company will be able to offer private lines to practically all who want them. Graded service rather than rural multi-party lines is expected to predominate. As part of the intensive public relations program of the company, colored telephones will be available to subscribers at installation time without extra charge.

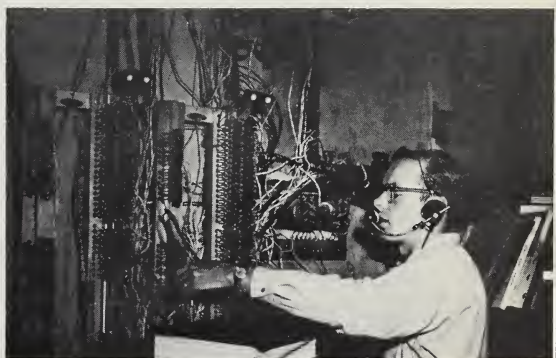
Sandy soil in the southern half of the island will permit buried plant except for highway crossings and marshes. Even drop wires to houses will go underground.

Considerable savings are expected if Whidbey can turn to microwave for connection with the mainland. The straight-line distance to the city of Everett is about 5 miles, but the Whidbey toll traffic has been going about 80 miles by wire to get there. Most toll calls go to Seattle or beyond, and microwave may reduce the toll rates for subscribers.

If there is a special lesson to be found in the Whidbey Island development, it is this: That the day of individual initiative is still at high noon in the independent telephone industry, when a young man with limited finances of his own can select not only the kind of business he wants to build, but even pick a choice location.



**As family man (above):** "Mary Lou and I agree that every family needs two telephones." **As trouble shooter (below):** "In a small company you learn to do everything."



**As operator on magneto board:** "We are converting to modern dial."

# PROPERTY FOR THE *Record*

What is a CPR, anyway, and how does it fit into the operation of a telephone system? CPR is, of course, the abbreviation for Continuing Property Record. This record accumulates costs of telephone plant in service by units of property. By computing average costs and applying them to units retired, the telephone company is in a position to determine accurately the plant value at any given time.

Because of such use, the units of property are identified as retirement units. The CPR serves, therefore, the primary object of maintaining a record of the retirement units that are actually in service, and their cost. In this respect, it is a necessary subsidiary record which provides the supporting detail for the pertinent control accounts. The CPR and similar items, such as the perpetual inventory of materials and supplies, the subscribers receivable ledger, and the like, all substantiate balances in the general ledger.

The CPR's usefulness depends naturally upon the quality of the telephone company's accounting practices. Careful reporting of field work performed on plant, including labor, materials used, transportation, and salvage, together with proper accounting procedures carefully applied, will produce more accurate continuing property records. The end product will be a realistic record of the telephone plant in service.

Telephone companies converting from magneto or common battery to dial operation should follow a 5-step plan in establishing CPRs. The others may be able to combine some steps. Under this plan each company would:

## Step One

First, establish a list of retirement units to be used. A list of retirement units begins on page 35 of part 31 of the FCC uniform system of accounts (January 1957 edition).

## Step Two

Second, inventory the retained plant, or existing plant if construction of the new plant for the major change-over is yet to be done. This can be accomplished by a field count.

## Step Three

Third, develop the original cost value, or best estimate, of the retirement units included in the retained (or existing) plant inventory. This will form the basis for adjusting the general ledger plant account to reflect these figures. It would also be the proper time to determine the applicable depreciation percentage and adjust the depreciation reserves.

## Step Four

Fourth, finish plant inventory by including additions made subsequent to cutoff date of retained plant inventory. This may be taken directly from final inventories of contract and force account construction. Work order inventories would also be added.

## Step Five

Fifth, complete the process by computing values of retirement units. The dollar value in the telephone plant accounts should be a reasonable representation of the actual value. Any correcting adjustments for com-



panies under regulatory jurisdiction would be subject to commission approval.

This last step utilizes trial unit prices which are used to arrive at the trial values of the total retirement units included in each of the various plant categories. These in turn may be tested against the actual cost according to the books. The ratio of the book value to the trial value for each type of plant furnishes the percentage to be applied to the trial value to adjust to the actual cost value. From this, the adjusted retirement unit price may be determined.

After the CPR is established, it requires very little time to maintain. The average unit price, once established, should be changed only once a year. This would usually be at the end of the fiscal year when the CPR is brought into reconciliation with the general ledger control accounts.

During the year, the number of retirement units added or removed from plant are summarized as "Units In" and "Units Out" each month. Only quantities are recorded. The total retirement units of each type at the end of the year is obtained by taking the beginning balance, adding the "Units In" and deducting the "Units Out." The current retirement unit

values are used as trial values for obtaining new values under the procedures outlined above. These new retirement unit values are then to be used during the following year.

While the CPR serves primarily as a continuous record of quantities and costs of the retirement units making up the plant in service, it has a number of other important functions and uses. Accurate cost information is at hand for crediting plant accounts for units removed. Data in the CPR are valuable in the preparation of a toll separation study. Further, the CPR may be separated into sections according to exchanges and taxing districts to meet the requirements of regulatory bodies. Recording the retirement units and their cost according to location is regarded in many cases as a necessary tool of management.

In addition, the CPR helps in maintaining a more accurate rate base, or in establishing an adequate basis for a rate increase. The need for a physical inventory of plant may be eliminated because regulatory commission representatives, by reviewing and testing the CPR, find assurance that the plant valuations on the books reasonably reflect the original cost.

REA has published detailed procedures for continuing property records in Section 1870 of the Telephone Operations Manual. The guidelines in it may be used in establishing a continuing property record.

By developing a CPR, the telephone company acquires a valuable record of components making up the telephone plant in service. Properly established and maintained, the continuing property record is an essential element of the supporting records, and therefore helps immeasurably to make the accounting system of a telephone company more complete.





## THERE'S GOLD IN *California*

“We wanted to keep control of our business—that’s why we went to REA for a telephone loan back in 1950.” This is the way Chester A. Gibbs begins the story of how he and his wife, Gladys, built the Colfax Telephone Exchange from magneto lines connecting 160 stations in 1938 to a modern dial service for 925 stations in 1959.

Colfax, Calif., perches alongside the new 4-lane freeway that is Route 40, where it sweeps up into the first slopes of the Sierra Nevada. Colfax served the ’49ers who took the overland trail to California in search of gold. This highway and the location of Colfax shape the plans of Mr. and Mrs. Gibbs in developing their telephone business to serve the rural area in historic Placer County.

The town is one of two communities on the heavily travelled route between California’s capital city of Sacramento and Nevada’s largest city, Reno. The resort area around Lake

Tahoe adds volume to the auto traffic. And that means a demand for telephones to serve vacationers and truckers, service stations and garages, restaurants and motels. Some of this has been lost through 2 miles of highway relocation, but Mr. Gibbs expects to make it back from new businesses. Eight miles of the new freeway cut through his service area. He hopes that the highway commission’s tests with pay station booths in southern California will lead to similar installations along Route 40. The company has 12 pay stations now and Mr. Gibbs says, “We are going to put in more to meet the increasing demand. They carry a lot of our outgoing toll calls and toll traffic makes up about 45 percent of our total income.”

Some more of the toll traffic comes from two other circumstances. One is the town’s importance as a principal shipping point for Bartlett pears, raised here for the eastern markets. The other is its geographical relation to Sacramento.

"The elevation is only 100 feet above sea level down there in the Sacramento Valley and it's bound to be hot," explained Mr. Gibbs. "But we are just 50 minutes away by car, and the climate is real nice up here at 2500 feet. More and more people who work in Sacramento and Roseville move up here to live. There's more gold to be had from business here nowadays than the old-timers ever dug out of the ground."

All of this has helped push the number of subscribers beyond the 5-year estimate, and has required considerable upgrading of service. In February, work will start on installation of equipment which will permit direct distant dialing by all subscribers of the Colfax Telephone Exchange.

"This will provide a service which adjoining exchanges are offering and we are not," pointed out Mr. Gibbs. "When we complete our transition to DDD next year, it will make a solid block of such service clear down through Sacramento." Asked if he anticipated any subscriber difficulties in the use of direct distant dialing, the manager shook his head and recalled, "When we made the shift from magneto to dial with REA funds in September 1955, the people here took right away to the new service. They were enthusiastic about it and there was no problem about introducing something new."

Like any good telephone manager, Mr. Gibbs acknowledges the close

**Direct Distant Dialing will help market Bartlett pears.**



**Pay station public telephones serve the heavy tourist traffic on Route 40.**

relation between the public service offered by his telephone company and his interest in community affairs. He has participated in local activities and has been a member of the Placer County Planning Commission for 16 years. Now he is chairman of that body and co-chairman of a tri-county planning committee. A recent achievement of the planning body has been to get a high school built at Colfax. Up to this time, students in the area had to go down into the Sacramento Valley, 18 miles away, to attend school. The new school will attract more families, and that will mean more people wanting good telephone service in the rural area around the town.

"I guess the time will come when we will be back for another REA loan," he said, "because I don't know any place else where we can get financing for a system to provide rural service."

**Manager Gibbs helped bring the new high school to Colfax.**







## Smooth Cutovers Don't Just

## HAPPEN

“Number please” became a thing of the past for subscribers of the Western Arkansas Telephone Company, Russellville, Ark., on a recent Sunday morning. Following colorful ceremonies, the official cutover was made to dial operation smoothly and practically trouble-free. This apparently effortless event to “ring out the old, ring in the new” climaxed 30 months of intensive planning and just plain hard work to pave the way for a smooth transition.

The pre-cutover program was designed to improve understanding by subscribers and to cut trouble spots and their costs to a minimum. Planning got underway many months ahead of time with a conference held by top officials of the company, President R. A. Lane, Commercial Manager F. G. McLane, and Assistant Commercial Manager Thad Nichol. They decided to put on an education-inspection drive, with Nichol spearheading the effort. Nichol instituted a 4-pronged campaign:

1. Personal visit with each local subscriber;

2. Individual letter to each subscriber;

3. Pamphlet on “How To Use Your New Dial Telephone”;

4. Local newspaper and radio publicity.

Seven women familiar with the community were hired on a temporary basis as special envoys to call on local subscribers. Each worker was assigned a relatively small area to canvass, eliminating transportation costs. All were thoroughly coached in the method of conducting the interview and were carefully briefed as to the purpose of the visit and background information about the company and its new service. In training these employees for their important job, Nichol followed an agenda carefully laid out in advance.

The canvassers contacted more than 2,200 subscribers in person. To each one, the women explained the proper method of dialing, making toll calls, and obtaining operator's assistance.

The canvassers also answered questions on rates, services, and

equipment. To supplement the personal touch, a copy of the instruction pamphlet was left during the call. Further, each subscriber was invited to practice so that the canvasser could be sure that dialing technique had been mastered.

These visits had some side results which were not altogether expected, but which added to the value of this canvass. While the special employees were not expected to be sales people, each one could and did take orders for additional services and equipment when these were requested. As a result, 33 up-gradings of installations were sold. Some additional listings, extensions, and a few color telephones were purchased.

Canvassers had a chance to check the telephone instrument and report any existing or potential trouble spots. Later complaints were headed off by discovering through the canvass a number of damaged cords, dials that did not function, and bells which needed adjusting. Several wrong number stickers were noted, and the canvassers picked up a few requests for moving the phone to a more convenient location.

### Letters Sent to 800

A number of subscribers were not at home at the time of the call. Others lived so far from town that they were considered beyond the canvass limits. Letters containing cutover information and the specially prepared instruction pamphlet went by mail to about 800 such subscribers. All subscribers desiring further clarification of procedures were invited to visit the Russellville business office during office hours for personal instruction. This brought the regular employees more and more into the picture. In fact, the enthusiasm snow-balled and

all employees became goodwill ambassadors and special instructors for the cutover program. This enthusiasm rubbed off onto the representatives of the company installing the equipment, so that they took a special interest in preparations for the change-over.

Articles and pictures in the local newspaper provided additional highlights to the program. These items furnished valuable publicity for the efforts of the special employees in canvassing the Russellville area. Just a few days prior to the ceremonies marking the cutover, a front-page article called particular attention to the event. The report carried the "Dial Telephone Day" proclamation by Mayor James E. Newton in celebration of the occasion. Participation by the local radio station culminated in a special broadcast of the ceremonies which got underway about 8:30 Saturday night, a few hours ahead of the cutover deadline. The broadcast and newspaper publicity helped materially to dramatize the fact that henceforth the subscribers were to dial the number wanted, after hearing the dial tone, rather than listening for the familiar sound of the friendly operator's voice.

The actual change took place uneventfully at midnight as scheduled. Nichol reported that a flurry of busy signals on the first day was to be expected on such a special occasion. Many Russellville residents had been waiting the opportunity to try their new "gadgets." Their very willingness to use their new facilities fully at the start of the new service was considered added evidence of the benefits to be obtained from the elaborate preparations and extraordinary efforts that went into planning the cutover to dial telephone operations.



Old and new telephones attracted many visitors to display, one of 14 exhibits in patio of U. S. Department of Agriculture building.



Time to cut the birthday cake, at REA employees' dinner-dance as the REA telephone loan program reaches the end of its first decade.

## REA 10th TELEPHONE ANNIVERSARY



Administrator Hamil points out headquarters location of REA telephone borrowers on map, a feature of REA exhibit. These 679 dots signify 679 borrowers. REA has approved \$610 million in loans to them, to finance new or improved telephone service for nearly 1¼ million subscribers.





↑ Week of anniversary observances was opened by Under Secretary of Agriculture True D. Morse.

➡ Mr. Hamil thanks Bryson Rash, noted Washington television news commentator, for serving as M.C. on anniversary program.



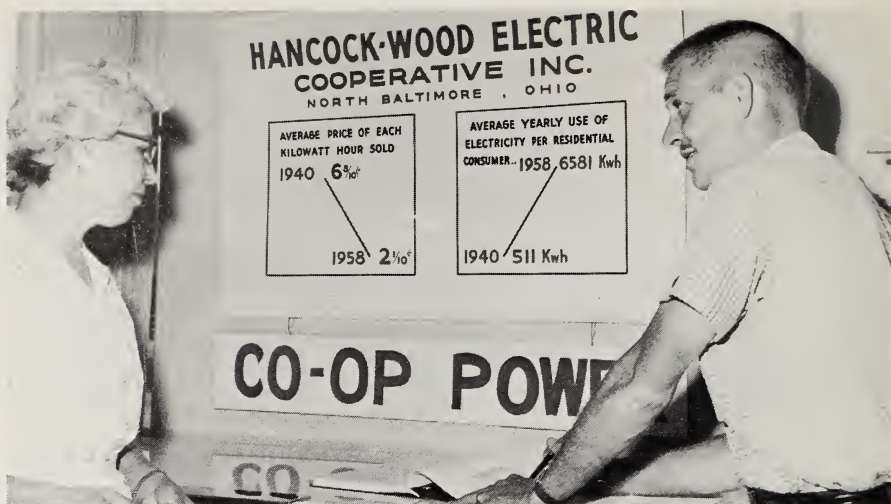
United for telephone progress: Ralph J. Foreman, REA Deputy Administrator; Orla Moody, A. T. and T.; Administrator Hamil; William C. Henry, U. S. Independent Telephone Association; D J. McKay, manager of Golden Belt Telephone Association, LaCrosse, Kans.

↓ Beauty on duty! These REA girls helped open the anniversary program; from left: Lana Wykle, Jo Anne Strohmer, Norma Green.



Administrator's Telephone Advisory Committee met in Washington during anniversary week, posed for this group shot.





## AIDS IN CHOOSING ELECTRIC HEAT

**D**irect assistance highlights the campaign by Hancock-Wood Electric Cooperative, North Baltimore, Ohio, to help its members choose electricity for house heating. Other aids are consumer satisfaction, insurance, incentives, and published material. The results are spectacular. More than 300 rural families already use electric house heating and new ones are coming on the lines all the time.

After the board and manager decided that the electric heat type of load should be encouraged, the Co-op launched a promotional program to help members with their plans for installing electric heating in new homes or converting to it in existing homes. The assistance offered by the Co-op falls into four major categories:

First, the Co-op's heating specialist will study the member's plans and give an engineered estimate of annual heating cost.

Second, the Co-op's experience enables it to tell approximately what the cost will be to

convert from an existing system in an old house, or to install from scratch in a new house.

Third, each electrically heated home is carefully checked by the Co-op to assure adequacy of installation and insulation.

Fourth, the Co-op refers prospects to certified electric heating dealers and installers who are happy to bid or estimate on each specific installation.

Three men on Hancock-Wood's staff spark the drive for more and better electrically heated homes. They are Manager Powers Luse, Heating Specialist Robert Bradner, and Electrical Adviser Jerry Sterrett.

Bradner gets his leads from a variety of sources. For example, a prospective builder will ask for a temporary electric service to the site of his new home. Or, one of the Co-op's staff will see a ground-breaking and will report it at the office. Bradner immediately calls the owner and makes an appointment to discuss



◀ Here is Bradner in lobby of Co-op office, extolling virtues of electric heating to a prospect. Placard in background presents forceful facts to back up his explanation.

the possibility of installing electric heat, while there is still time to make that choice.

The Co-op provides several courtesy services for the prospect. It makes up a half-dozen free copies of the floor plan and specifications for the owner, who usually needs them to submit to contractors and carpenters. This favor works both ways—it assures both the Co-op and the owner that all bidders are basing their estimates on the same specifications.

The list of specifications for the cost estimate is complete and leaves nothing to chance. There are blanks for the quantities of insulation needed for floor, wall, and ceiling in each room; location of thermostats; capacity of main fuse panel; materials for the 200-ampere service entrance; and also requirements for a 400-ampere yard meter pole, if needed.

Bradner also works up an individual heat loss chart for each prospect. This is a rather complicated

tabulation that estimates the cost of heating the whole house, room by room, down to the last square foot. The final figure it comes up with is an important one to the prospect, when it comes to deciding about electric heat, because it gives him a definite figure for heating his house electrically for an 8-month period.

"Our estimates are usually a bit on the high side," Bradner says, "but we don't miss them by much." There are several cases on record where Bradner's calculations (heat loss coefficient, number of degree days, temperature difference, and other electric heat factors) have resulted in a 100 percent accurate estimate.

The best advertiser for electric heating in the Co-op's experience is an owner of an electrically heated home. To capitalize on all this consumer satisfaction, the Co-op conducted a postcard survey of all members using electric heat. On this card it asked for the date electric heating was started, the total heating wattage, the type of heat installed, and also a free air-conditioner for the best statement on "Why We Like Electric Heat."

Electrician Firsdon wields stapler as he installs ceiling insulation. This house, on the Co-op's lines, will be electrically heated for efficiency, economy, and cleanliness.





Stanley Korzynski, of Wayne, Ohio, won the contest with this statement:

"Gentle warmth permeates the whole house uniformly. Our rooms are individually thermostatically controlled, which gives us heat where and when we want it in the shortest time possible. Cleanliness, comfort, safety, plus economy are the outstanding features of our electrically heated home."

Korzynski had one complaint regarding electric heat: He was sorry that he hadn't converted years ago. He heated his 818-square foot home for \$128 last year (15-16 cents per square foot), and the winter was the worst in 16 years.

Not all the members, however, are as "sold" on electric heating as is Korzynski. Some of them, according to Luse, are satisfied enough with the efficiency and low cost, but they actually worry about the safety aspects of electric heating.

That is how the Co-op's new electric life insurance program got started. Last August it initiated free insurance for every member, his family, or any person visiting the member's premises, against accidental death from electricity furnished by the Hancock-Wood Co-op. The policy will pay \$2,000 for an adult, or \$1,000 for persons under 19, who die from electrical shock resulting from power the Co-op supplies.

**Heating Specialist Bradner prepares a heat loss chart for prospective electric heating load. System map in background shows some electric heating installations served by Hancock-Wood.**



The Co-op can afford to provide this policy free to its members. It purchases the group insurance from a well-known underwriter, at the rate of one cent per meter per month, and even this low rate is expected to drop in a few years. The company estimates the possibility of anyone being killed by electricity as extremely remote—about one in 500,000, excluding linemen.

Hancock-Wood claims that it is the first electric utility in the United States to offer this type of protection.

Free insurance is only one of the incentives in electric heat promotion. One of the most popular among the builders and dealers is the cash allowance program. For every home, new or existing, that is equipped for electric heat, the firm gets \$35 per installation, for the first six. From the seventh through the twenty-fifth installation, it gets \$45 each. Those figures are for resistance-type heating. For heat pumps, the allowance is \$50 each for the first 6, and \$75 after that. The money is paid to the person or firm that assumes responsibility for the electric heating system's operation and maintenance after it has been installed. A member of the Co-op staff makes an informal inspection for proper insulation and wiring, while the house is under construction.

The Co-op has published a 12-page brochure, in 3 colors, entitled "Electric Heat." In easy-to-understand language it explains resistance heating, heat pumps, convection, conduction, radiation, and all the other heating factors that consumers question.

Manager Luse and his associates feel that their program, characterized by such an extremely helpful attitude, has been even more successful than expected.

# POWER

# use exchange

**HOLIDAY SALE**—Wabash County REMC, Wabash, Ind., is renewing its offer of electric saucepans during this holiday season. Last year more than 575 members bought saucepans in a December 1-24 offer. This was a repeat of a similar successful promotion in 1957.

**TV SCHOOLS** — Eight Minnesota co-ops joined hands to sponsor a 4-week series of cooking schools on KCMT-TV, Alexandria, this fall. Theme for the series, presented on Thursday afternoons, was "New Convenience Foods Cooked Electrically." Interest in the school was maintained by drawings each week from a box containing all co-op members' names, with an award of a cookware set to the lucky member. The drawing on the final program was for the grand prize of an electric range. Rosemary Wilson, Alexandria, was the "principal and teacher" of the school.

**NO DISHPAN HANDS**—To boost attendance and gain interest in a key appliance to be promoted this next year, Delaware County Electric Cooperative, Delhi, N.Y., featured an electric dishwasher as a grand prize for its annual meeting in September.

**ELECTRIC FAIR**—Georgia's first statewide Electric Fair for key farm men and women launched a new activity in the State. Forty-one co-ops were represented at the Fair, held on Labor Day at Rock Eagle 4-H Center, Eatonton, Ga. Events included: a tour of the exhibit tent filled with farm and home equipment, swimming and movies for children, and a program for the adults (co-op members,

directors, managers, and community leaders) attending the Fair.

**AMPLE CIRCUITS**—Eastern Iowa Light and Power Cooperative, Wilton Junction, Iowa, has inaugurated a requirement that all new homes on its lines install a 100-ampere service entrance with a 20-circuit load center. The announcement, in *Current News*, explained that the policy was adopted to protect members building new homes from making costly replacements later. It stated, "If you are in doubt as to specifications or requirements on your service entrance, load center, or any other phase of your electric service, contact your cooperative. An employee will call at your home and explain the policy or assist you in choosing the right equipment to fit your needs."

**EXHIBIT TRAILER** — Employees of Lorain-Medina Rural Electric Cooperative, Wellington, Ohio, designed and outfitted an exhibit trailer under Manager Karl Crawford's leadership. The trailer is equipped with all types of thermostatically controlled electric heaters and standard types of household appliances—range, refrigerator, freezer, washer, dryer, dishwasher, and television. Automatic yard lights and a public address system make it possible, day or night, to use the trailer for large groups. Seating for about 30 people permits use of the trailer for high school class instruction and club meetings. Main use to date has been for neighboring county fairs, and at Ohio State Fair where it was on loan to Ohio Rural Electric Cooperative Association.



# **ELECTRIC APPLIANCES FOR KENTUCKY'S SCHOOLS**

An "investment in youth" is what the Kentucky rural electric co-ops call their statewide School Equipment Loan Plan. Under this program, the co-ops lend major electrical appliances to schools for use in their home economics classes. Any high school in the counties served by these co-ops which offers home economics training is eligible to participate in the plan so long as the equipment is used only for such classes. The offer is good regardless of the school's source of power.

Before entering into the program, the Kentucky co-ops working through their statewide association studied the situation for a period of 2 years. They were guided by their ideal of community service which has always included an interest in youth and their education. In looking forward to the time when they might be able to help the young homemakers of Kentucky, they surveyed the problems confronting both teachers and students in the State's high school home economics departments. They observed that outmoded equipment hampered schools in their efforts to provide adequate instruction. In some cases, the total lack of equipment prevented the schools from offering such courses at all. Increased enrollment intensified the problem.

Following a thorough analysis, and after they had evaluated other plans, including similar ones used elsewhere, the co-ops came up with their School Equipment Loan Plan—a practical, self-sustaining solution to the prob-

lem. The actual details of the plan were carefully worked out by a joint steering committee made up of the director of vocational home economics, a field supervisor of vocational home economics education, a school principal, a county superintendent of education, and 3 Kentucky co-op managers. Under the plan as adopted, the co-ops lend 5 items of electric equipment to participating schools: range, refrigerator-freezer, washer, dryer, and dishwasher. They install new models each year between May 15 and June 1, so that the latest styles are available for the students' use.

## **Schools Sign Contracts**

Schools wishing to participate contact the office of the nearest rural electric co-op. A formal agreement is entered into, designed to see that the school has adequate wiring and that the appliances are protected from abuse. The contract provides for replacing the installed equipment each year. It further gives the co-op the right to put a decal sticker on each appliance. This identifies the lender, and clearly marks the price at which it will be sold when replaced by a new model. The contract specifically applies to the use of the appliances in home economics departments and prohibits their use elsewhere.

The operation of the plan does not preclude the use of other equipment and types of appliances in the home economics laboratories. It is designed to augment rather than supplant other facilities.



Because of the large number of co-ops working together on this plan, it was possible to secure the appliances at attractive prices, which enabled their resale on a break-even basis. The purchases are being rotated among suppliers. The first year, one manufacturer furnished all ranges, another all refrigerator-freezers, a third all driers, and so on. In succeeding years, as the equipment is replaced, each company is given an opportunity to furnish a different appliance. By placing 5 appliances in as many years, each company is enabled to acquaint users with a broader representation of its line. The mass purchasing permits the items to be sold later at real bargain prices. Each co-op is responsible for disposing of items it loans out and replaces. Parents of the home economic students, teachers, and school officials are given the first opportunity to buy these items.

### **Workshops Help Teachers**

The steering committee included plans for a series of workshops for teachers each year. These workshops provide information on the new equipment being installed for teaching use. The training sessions are staffed by manufacturers' home economists and the Kentucky co-ops' home economists, who agreed to help with these meetings. The first series of workshops was held in August. The participating schools were asked to encourage teachers in their home economics departments to attend.

Relationships are kept at the local level as much as possible. The agreement is between the local co-op and the school. Co-op employees inspect the school's wiring, install the new appliances, remove the old ones, and perform other services as necessary. Through the decal, the local co-op

gets credit for loaning the equipment. Participation by the individual co-op is considered a contribution on behalf of all Kentucky rural electric co-ops to their commonwealth.

### **Statewide Guides Program**

Co-ordination of the program is handled by the Kentucky Rural Electric Cooperative Corporation. It arranged the purchases of the appliances and will negotiate replacements. Working with the Kentucky Department of Education, it conducts the annual training workshop. It prepared and distributed a 2-color brochure explaining and illustrating the program. It had the decals printed for member co-ops. With all of these manifold activities, the statewide manages to stay in the background as far as the interrelationships between school and lender are concerned.

As a result of the program, the home economics department of schools in 112 of Kentucky's 120 counties are eligible for participation. In its first report on the plan, in June 1959, the statewide announced that 250 schools had already taken advantage of the offer. Among the electrical appliances installed as of that date, there were 317 ranges, 136 refrigerator-freezers, 140 washers, 107 clothes dryers, and 139 dishwashers. More schools are coming into the program as wiring is made adequate to operate the appliances.

According to Agriculture Engineer Tom Shirley, on the statewide's staff, "We developed the program because we felt it would give our young people the opportunity to obtain the best information that is available about modern electric equipment. The schools in our State were not getting the equipment that they needed. So we developed a plan that would remedy the situation."



Removing armor rod  
from a hot line  
takes skill.

**HOT TIPS  
ON STAYING  
ALIVE . . .**

## ***WHILE WORKING ON HOT LINES***

Unique schools in two southern states literally have their students "up in the air," and failure could cost a man his life. At each week-long training session, men who work on power lines learn how to do their work safely without cutting the vital flow of electricity to rural consumers. They learn safe practices and develop

skill in working on live lines under actual conditions.

The Alabama Job Training and Safety Advisory Committee, made up of representatives from the rural electric cooperatives and municipal electric systems, sponsors a live line training school at Tuscaloosa. It is located on the campus of the Shelton Voca-

tional Trade School. Trade and Industrial Education personnel of the State Department of Education conduct the program.

Rural electric co-ops in South Carolina have developed a live line school at Columbia which is sponsored jointly by the Statewide Association of South Carolina Cooperatives and the South Carolina Trades and Industrial Education Department. The school facilities are situated adjacent to the Opportunity School near the Columbia Airport. Makers of the special tools used in live line work are cooperating by providing instruction in the use of such equipment. The staff is rounded out with personnel from the Trades and Industrial Education Department and from instructors on loan from the Georgia State Department of Education.

In Alabama, the live line training field consists of a 16-acre plot. A 10-acre plot of land serves as the key "classroom" for the school in South Carolina. Power lines were strung at these sites from materials and poles contributed by suppliers of electrical equipment and by participating organizations. Safety and job training instructors and personnel from education departments helped to plan and supervise construction of these facilities.

The lines are so set up that trainees experience every conceivable problem and situation which they might encounter while working on their systems back home. Some field work is done at night in order that they will be exposed to all typical conditions. Although some study was conducted in classrooms, and, of course, on the ground, the linemen taking the training spent most of their time perched up on the poles. Working with energized lines makes safety training im-



**Changing out an insulator, crossarm, or pole is taken in stride, day or night, through trained teamwork.**







**Classwork starts with safety from the ground up.**

perative from the start as an error of judgment or movement could have fatal results.

Linemen, helpers, truck drivers, and others who make up a working crew are trained as a team. They learn to perform the tasks normally required in repairing or rebuilding electric distribution lines—all with

the current on! They practice the latest techniques in hot line work.

These schools enable the rural electric co-ops, as well as participating municipal systems, to keep pace with new developments in the uses of electricity and in system operation. Rapid progress in these areas has impressed upon boards and managers the need to render ever better service to members. The era of freezers, brooders, and other electrical time-savers demands uninterrupted service.

**South Carolina Statewide president Henry M. Faris presents a certificate of achievement to L. E. Rearden of Aiken Electric Cooperative.**



As a start, 49 men have completed this training in Alabama, and 72 have been graduated from the South Carolina school. More sessions are scheduled. Facilities and programs will be expanded and altered as new tools, devices, and techniques are developed, keeping men who work on hot lines up-to-date in the use of modern equipment and methods.

**Rural Lines**

## Zero Billing Proves Useful . . .

### In More Ways Than One

The article about zero billing in the March 1959 issue of *Rural Lines* developed the point that the greatest benefit would be on systems where the office computes the bill and mails it to the consumer. This item drew several responses, among which was one of unusual interest with emphasis on an additional application.

A letter from James F. Schmidt, manager of the D. S. and O. Electric Cooperative Association of Solomon, Kansas, urged consideration of possible savings from zero billing at co-ops where the consumer does self-billing, computing his own bill.

Two conditions arose which brought this matter forcibly to Mr. Schmidt's attention. First, a number of consumers were reaching usages in excess of the existing chart. Second, the state sales tax was raised from 2 to 2½ percent. This manager found that he could greatly extend the chart's range and reduce the card's size to 7 x 10½ inches by going to zero billing. As a result, the Co-op was enabled to cut its reproduction costs in half.

The old chart had a maximum of 1200 kwh and covered both sides of a sheet measuring 9 x 12 inches. Schmidt noted that many errors were made by users whose readings exceeded this kwh figure, even on what appeared a simple calculation for the additional usage. The Co-op was reluctant to print charts with a higher level, because that would be considerably more bulky and much more costly.

The tax increase pretty well forced the Co-op to have a new chart printed. The fractional tax computations were included right in the chart. The new one was extended to 5000 kwh, enabling all but a very few to read their bills direct from the chart.

While difficult to measure monetarily, an important benefit observed by Schmidt was the convenience to the consumer of the new zero billing chart. It is much easier to read and can be posted for reference more conveniently. The spaces for meter reading figures on the billing envelope were printed with zeros for the last digit, further simplifying the consumer's job of computing and paying his bill. This also means that the task of spot-checking or verifying consumer bills is a great deal easier for office personnel. As a sidelight, Schmidt pointed out that the Co-op imprinted the consumer's name on each self-billing envelope before mailing, to assure positive identification when the envelope is returned with the meter reading and remittance.

D. S. and O. has been using the new chart since August 1958. The following excerpt from Manager Schmidt's letter shows how well zero billing has worked for this Co-op and that the word is spreading to others.

"We hope you can recommend it to other cooperatives. We believe that there are now approximately four systems in Kansas using the zero billing method in connection with self-billing. It has worked for us, and we are certainly most satisfied with the results."



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